

CLAIMS

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A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, said system comprising:

an event retriever, said event retriever generating an event pair which comprises a target value and an actual value associated with said schedule of services;

an event observer, said event observer receiving said event pairs from said event retriever, calculating the difference between said actual and target value, and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector regarding potential windows of opportunities;

said window of opportunity detector, which receives said potential windows opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches said detected windows of opportunities with service providers for the purposes of enhancing sales.

2. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further utilizes service provider schema information stored in a service provider schema database to generate said event pairs.

1 3. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 2, wherein said service
3 provider schema is a document type definition (DTD).

1 4. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 2, wherein said service
3 provider schema is an XML schema.

1 5. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one or
3 more rules from said set of first rules is a threshold rule, and said potential windows of
4 opportunities are identified based on comparing said difference between said actual and
5 target value against said threshold.

1 6. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one or
3 more rules from said set of second rules are provided externally by said service providers.

1 7. A system for enhancing sales for service providers by utilizing an opportunistic approach
 2 based on an unexpected change in a schedule of service, as per claim 1, wherein said system
 3 further accesses a subscription management service wherein said events and schedules are
 4 defined for tracking.

1 8. A system for enhancing sales for service providers by utilizing an opportunistic approach
 2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one
 3 more rules of said set of first and one or more rules of a set of second rules are stored in a
 4 rule database.

1 9. A system for enhancing sales for service providers by utilizing an opportunistic approach
 2 based on an unexpected change in a schedule of service, as per claim 1, wherein said events
 3 are Internet Calendaring and Scheduling Core Object Specification (iCalendar) events.

10. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further comprises:

an enhanced gatherer, which dynamically receives information from service providers over a network using simulated user interaction, and

a pattern matcher, which extracts said event pair from said received information based on matching the structure of said received information with that of a stored schema of said service providers.

11. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said enhanced gatherer is a web crawler.

12. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

13. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said received event pairs are extracted from a markup language form.

1 14. An e-commerce method for enhancing sales to potential customers, one or more steps of said
 2 method performed over a network, said method comprising:
 3 electronically acquiring service schedules of one or more service providers;
 4 detecting one or more thresholds of opportunity for sales to said potential
 5 customers based on periods of time of customer inactivity within said service schedules;
 6 providing notification of said opportunity to said service provider, and
 7 wherein said service providers offer sales to said potential customers during said period
 8 of inactivity.

1 15. A method for enhancing sales for service providers by utilizing an opportunistic approach
 2 based on an unexpected change in a schedule of service, as per claim 14, wherein said step
 3 of detecting a window of opportunity comprises of:
 4 detecting an unexpected change in said schedule;
 5 checking if people are blocked due to said unexpected change in schedule;
 6 checking if service providers benefit from said blocked scenario, and
 7 wherein said window of opportunity is detected if said service providers are going to benefit
 8 from said blocked scenario.

1 16. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 15, wherein said step
3 of detecting an unexpected change in said schedule further comprises:
4 simulating user interaction via data gathering software to request data from service providers
5 via a network;
6 receiving information from said service providers via said network;
7 accessing a service provider schema database and reading schema regarding said service
8 providers;
9 matching said received information with said read schema associated with said service
10 providers, and
11 extracting data events, comprising actual and target data, based on said matching step.

1 17. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 16, wherein said
3 network comprises any of the following: local area networks (LANs), wide area networks
4 (WANs), wireless networks, or the Internet.

1 18. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 15, wherein said data
3 gathering software comprises data mining software.

19. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 15, wherein said extracted data events are iCalendar events.

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A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, wherein said method comprising:

extracting standardized event data comprising an actual event value and a target value, from said travel service provider via a network;

comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value;

detecting a window of opportunity based on one or more rules from a set of second rules,

and

distributing said window of opportunity information to said service providers for enhancing said service provider's sales, if said detection of window of opportunity occurs.

21. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said travel services comprises any of: airlines, trains, or buses.

1 22. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 event data is arrival or departure times and locations associated with said specific airline.

1 23. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 one or more rules from said set of first rules is based on said difference of actual and target
4 values being above or below a predetermined threshold.

1 24. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 one or more rules from said set of second rules is based on rules provided by service
4 providers.

1 25. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 24, wherein said
3 rules provided by service providers are stored in a rules database.

26. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said step of extracting standardized event data further comprises:

- accessing said travel service provider's webpage over a network;
- posting data regarding a specific travel provider in said webpage and querying for information regarding schedule of said specific travel service;
- receiving a web document from said travel service provider regarding said schedule of said specific travel provider;
- accessing a service provider schema database and reading a schema associated with said travel service provider;
- matching said received web document with said read schema and extracting event data, and
- standardizing said extracted event data.

27. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

28. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of posting data is accomplished using a HTTP POST command.

1 29. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 web document is of any of following formats: HTML, SGML, or XML.

1 30. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 read schema is an XML schema.

1 31. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 read schema is a DTD.

1 32. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 step of standardizing involves standardizing based on iCalendar standard.

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2 An article of manufacture comprising a computer user medium having computer readable
3 code embodied therein which provides for a e-commerce method for enhancing sales to
4 potential customers, said article comprising:
5 computer readable code electronically acquiring service schedules of one or more service
6 providers;
7 computer readable code detecting one or more thresholds of opportunity for sales to said
8 potential customers based on periods of time of customer inactivity within said service
9 schedules;
10 computer readable code providing notification of said opportunity to said service provider,
11 and wherein said service providers offer sales to said potential customers during said period
of inactivity.